

SIGNS AND SYMPTOMS

- *swollen lymph node, especially in the neck, armpit or groin*
- *swelling of the face*
- *weakness, tiredness*
- *sweating, especially at night*
- *unexplained fever*
- *unexplained weight loss*
- *abdominal pain or swelling*
- *pain*
- *breathing difficulties, occasional cough, sometimes difficulty in swallowing*

WHAT TO DO

Take your child to the doctor, who may order the following tests: a complete blood count (CBC) and chest X-ray.

RETINOBLASTOMA

Retinoblastoma is a malignancy of the retinal cell layer of the eye. It usually occurs before the age of five, can occur in one or in both eyes and is hereditary in some cases. Retinoblastoma accounts for 3-4% of all childhood cancers; about 1 in every 15,000 children. Retinoblastoma is treated by surgery, chemotherapy, and radiation. There is a 80-90% 5 year survival rate.

SIGNS AND SYMPTOMS

- *whitish color behind the pupil*
- *problems with eye movements (crossed eyes)*
- *a red irritation that persists*

WHAT TO DO

Take your child to the doctor and discuss your concerns.

BONE CANCERS

Osteosarcoma and Ewing’s sarcoma are the most common malignancies of bone tissues in children. Osteosarcoma, the more common of the two, is usually in bones around the knee; Ewing’s sarcoma may affect bones of the pelvis, thigh, upper arm, or ribs. Bone cancers are most common in ages 10-20 and they account for about 6% of all childhood cancers. Bone cancer is treated by surgery combined with chemotherapy. Generally, there is a 5 year survival rate of 70%.

SIGNS AND SYMPTOMS

- *pain in a bone*
- *swelling or tenderness around a bone or joint*
- *interference with normal movements*
- *weak bones, leading to fractures*
- *fatigue, fever, weight loss, anemia*

WHAT TO DO

Take your child to the doctor. The doctor should order the following tests: blood tests and X-rays.



SIGNS OF CHILDHOOD CANCER

- C** *continued, unexplained weight loss*
- H** *headaches, often with early morning vomiting*
- I** *increased swelling or persistent pain in bones, joints, back or legs*
- L** *lump or mass, especially in the abdomen, neck, chest, pelvis or armpits*
- D** *development of excessive bruising, bleeding, or rash*
- C** *constant infections*
- A** *a whitish color behind the pupil*
- N** *nausea which persists or vomiting without nausea*
- C** *constant tiredness or noticeable paleness*
- E** *eye or vision changes which occur suddenly and persist*
- R** *recurrent or persistent fevers of unknown origin*

Observe your child for any sudden, persistent changes in health or behavior. Since most of the symptoms of cancer can also be attributed to other conditions, diagnosing cancer can be a long process. You must trust your own instincts and work as a team with your doctor.

GENERAL DISCLAIMER

THIS BROCHURE IS INTENDED FOR INFORMATIONAL PURPOSES ONLY AND IS NOT INTENDED TO RENDER MEDICAL ADVICE. THE INFORMATION PROVIDED HERE SHOULD NOT BE USED FOR DIAGNOSING OR TREATING A HEALTH PROBLEM OR A DISEASE. IT IS NOT A SUBSTITUTE FOR PROFESSIONAL CARE. IF YOU SUSPECT YOUR CHILD HAS A HEALTH PROBLEM, YOU SHOULD CONSULT YOUR HEALTH CARE PROVIDER IMMEDIATELY. THE CHILDREN PICTURED IN THIS BROCHURE ARE REPRESENTATIVE OF CHILDREN AFFECTED BY CANCER, AND MAY NOT BE ACTUAL CANCER PATIENTS.



**ROCKY MOUNTAIN  
CANDLELIGHTERS FOR CHILDHOOD CANCER**  
124 S 400 E, Ste. 340, Salt Lake City, UT 84111  
(801) 487-7844 or (888) 556-2737

Education programs, emotional support groups and individual counseling, kids activities, family picnics, Camp AFOOFA (All For One; One For All) summer camps, quarterly newsletter, Ticket-Line for family outings, hospital services at Primary Children’s Medical Center, Angel Family Tribute.  
[www.childhoodcancer.org](http://www.childhoodcancer.org)  
email: [info@childhoodcancer.org](mailto:info@childhoodcancer.org)

**PRIMARY CHILDREN’S MEDICAL CENTER**  
100 N. Medical Drive, Salt Lake City, UT 84113  
General (801) 662-1000  
Hematology/Oncology (801) 622-4700  
[www.intermountainhealthcare/primary.org](http://www.intermountainhealthcare/primary.org)

**LEUKEMIA & LYMPHOMA SOCIETY  
UTAH CHAPTER**  
180 S 300 W, Ste. 260, Salt Lake City, UT 84101  
(801) 519-6600 or (877) 243-8908

Educational Programs  
Patient Financial Aid  
Support Groups  
Telephone and Online Support  
[www.ils.org](http://www.ils.org)  
email: [Jessica.drury@ils.org](mailto:Jessica.drury@ils.org)

**HUNTSMAN CANCER LEARNING CENTER**  
Huntsman Cancer Institute, 1st Floor  
University of Utah, Salt Lake City, UT 84112  
(801) 585-0605 or (888) 424-2100

Information Service and Lending Library  
Specialists answer questions and provide individualized help.  
[www.huntsmancancer.org/clc](http://www.huntsmancancer.org/clc)  
email: [patient.education@hci.utah.edu](mailto:patient.education@hci.utah.edu)

**TO FIND A PEDIATRICIAN IN YOUR AREA:**  
Go online to American Academy of Pediatricians  
[www.aap.org/referral/](http://www.aap.org/referral/)

**ACKNOWLEDGEMENT**  
THIS BROCHURE WAS PRODUCED THANKS TO A GENEROUS GRANT FROM THE UTAH DEPARTMENT OF HEALTH CANCER CONTROL PROGRAM.



CHILDHOOD  
CANCER

Parent Resource



ROCKY MOUNTAIN  
CANDLELIGHTERS FOR  
CHILDHOOD CANCER  
ENHANCES THE LIVES OF  
CHILDREN WITH CANCER  
AND THEIR FAMILIES  
BY PROVIDING HOPE,  
PRACTICAL AND EMOTIONAL  
SUPPORT, EDUCATION AND  
PATIENT ADVOCACY.

No-one should get cancer, especially children. Fortunately, less than one percent of US children are ever diagnosed with cancer. And for these children generally, more than seventy percent of them survive their cancer experience and lead long and productive lives. If you, as a parent, ever feel that there is an issue with your child’s health, please ask your pediatrician. In most cases, it won’t be cancer. And for those few who are diagnosed with cancer, there are many resources to help your family. Our local children’s hospital is Primary Children’s Medical Center. Rocky Mountain Candlelighters for Childhood Cancer is also here to help you, your child and family.



LEUKEMIA

Leukemia is a cancer of the bone marrow. It accounts for approximately 35% of all childhood cancers; approximately 1 in 1000 children will be diagnosed with leukemia by the age of 19, although it is more common in children under the age of 10. Leukemia is treated by combination chemotherapy and sometimes radiation. The 5 year survival rate is approximately 70%.

SIGNS & SYMPTOMS

- lethargy, weakness, paleness, dizziness
- back, leg, and joint pain, headache, trouble standing or walking
- easy bruising, unusual bleeding, frequent nose bleeds, bleeding gums, and red pinpointes on the skin
- repeated, frequent infections
- fever that lasts for several days
- loss of appetite, weight loss
- swollen lymph nodes, bloated or tender stomach, swollen liver or spleen
- night sweats
- irritability

WHAT TO DO

Take your child to the doctor. The doctor should check for enlarged liver, spleen, or lymph nodes and order a complete blood test.

NEUROBLASTOMA

Neuroblastoma is a solid malignant tumor which manifests as a lump or mass in the abdomen or around the spinal cord. It accounts for 5%-7% of all childhood cancers; about 1 in 6000 children will be diagnosed with neuroblastoma by the age of five. The average age at diagnosis is two. About 25% of newly diagnosed neuroblastomas are found in children under the age of one. This age group has the best prognosis, with cure rates as high as 90%.

SIGNS & SYMPTOMS

- lump or mass in the abdomen, chest, neck, or pelvis
- loss of appetite, nausea, weight loss, stomach pain, con stipation, difficulty urinating
- changes in the eyes: black eyes, a droopy eyelid, a pupil that doesn't constrict, vision problems
- pain in the chest, difficulty breathing, persistent cough
- pain or numbness in the lower extremities, limping, inability to stand, stumbling
- bone pain, fever, irritability, listlessness
- backaches (backaches in children are not usual)

WHAT TO DO

Take your child to the doctor. The doctor should: check for an abnormal mass and do a urine test.

WILMS TUMOR

Wilms tumor is a cancerous tumor on the kidney. It occurs in about 8 in 1 million children under age 14; it is more common in children under age 7. Treatment for Wilms includes surgery, chemotherapy, and possibly radiation. The 5 year survival rate is approximately 90%.

SIGNS & SYMPTOMS

- abdominal swelling and/or pain
- nausea
- vomiting
- constipation
- loss of appetite
- fever of unknown origin
- night sweats
- abnormal urine color or blood in the urine
- malaise

WHAT TO DO

Take your child to the doctor. The doctor should do an abdominal exam.

BRAIN CANCERS

Brain cancers account for 15% of pediatric cancers. The symptoms depend on the location of the tumor. Since the brain controls learning, memory, senses, emotions, muscles, organs, and blood vessels, symptoms vary accordingly. Young children may not complain of symptoms so parents must rely on their own observations of their child. Brain tumors are treated with surgery, radiation, and chemotherapy. Depending on the type of tumor and the diagnosis, the 5 year survival rate is 40-80%.

SIGNS & SYMPTOMS

- a seizure not related to high fever
- staring, repetitive automatic movements
- persistent vomiting without any known cause (projectile vomiting), nausea
- progressive weakness or clumsiness; neck tilt, squint
- walking, balance problems
- precocious puberty; growth retardation
- sleep apnea
- vision problems
- headache, especially that wakes the child up at night or is early in the morning
- pain, especially back pain, which should be taken seriously in a child
- changes in personality, irritability, listlessness
- excessive thirst and excessive urination (rare, if the tumor is pressing against the pituitary)

WHAT TO DO

Take your child to the doctor. Tell the doctor about your child’s behavior. If symptoms warrant, vision and other tests should be performed. The doctor should order tests like an MRI or CT scan.



RHABDOMYOSARCOMA

Rhabdomyosarcoma is a fast-growing, highly malignant soft-tissue sarcoma which can occur in the head, neck, around the eyes, the extremities (shoulders, arms, and legs), the pelvic region, the genitourinary tract; and in the chest and lungs. Rhabdomyosarcoma accounts for 5-8% of childhood cancers and usually affects children the ages of 2 to 6 and 15 to 19. A noticeable lump or swelling is present in many cases of rhabdomyosarcoma. Other symptoms depend on the location of the tumor. Current statistics state a 5 year survival rate of 60%.

SIGNS & SYMPTOMS

- lump or swelling, firm and painless to touch, in the extremities, the groin area, or the vaginal area
- drooping eyelids, swelling of the eye, protruding eyeball, rapid vision changes
- hoarseness, difficulty in swallowing
- abdominal pain that persists for more than a week

WHAT TO DO

Take your child to the doctor. The following tests may be ordered: tis-sue biopsy, complete blood count (CBC), X-rays, CT scan, or an MRI.

LYMPHOMAS

Lymphomas are malignant cells of the lymph system nodes located in the neck, armpit, and groin. These nodes are connected to each other and to the spleen, thymus, and parts of the tonsils, stomach, and small intestine. Once a malignancy begins, it often spreads throughout the rest of the system. Lymphomas are broadly classified as Hodgkin’s and non-Hodgkin’s and are distinguished by cell type. Hodgkin’s generally occurs between 15-40 years of age, while non-Hodgkin’s generally occurs between 30-70 years of age. Hodgkin’s lymphoma is more curable than non-Hodgkin’s. Lymphomas are usually treated with chemotherapy, radiation, and/or bone marrow transplants.